

WE CLAIM:

1 1. A waveform customization method for a signal generator, comprising:
2 retrieving a waveform and at least one code associated with said waveform
3 from a storage media;
4 retrieving at least one key associated with said signal generator;
5 comparing said at least one code associated with said waveform and said at
6 least one key; and
7 downloading said waveform to said signal generator under condition that said
8 at least one code matches said at least one key.

1 2. The method of Claim 1, further comprising:
2 bundling said waveform and said at least one code associated with said
3 waveform into a file; and
4 storing said file containing said waveform and said at least one code associated
5 with said waveform in said storage media.

- 1 3. The method of Claim 2, further comprising:
2 providing one or more parameters that characterize said waveform; and
3 creating said waveform based on said one or more parameters.

- 1 4. The method of Claim 3, further comprising:
2 providing one or more signal generator settings;
3 bundling said one or more signal generator settings with said waveform and
4 said at least one code; and
5 configuring said signal generator using said one more signal generator settings.

- 1 5. The method of Claim 4, wherein said steps of providing further comprises:
2 entering at least one of said one or more parameters and said one or more
3 signal generator settings by a user into a computer that creates said waveform.

- 1 6. The method of Claim 5, wherein said step of providing said one or more signal
2 generator settings further comprises:
3 pre-configuring said one or more signal generator settings; and
4 storing said one or more pre-configured signal generator settings on said
5 computer.

1 7. The method of Claim 2, wherein said file is encrypted, and further comprising:
2 decrypting said file after said step of retrieving said waveform.

1 8. The method of Claim 1, wherein said step of retrieving said at least one key
2 further comprises:

3 retrieving said at least one key from said signal generator, said at least one key
4 being stored within said signal generator.

1 9. The method of Claim 1, wherein said waveform is a signal modulated to
2 conform to one of a plurality of communication formats, said signal generator being capable of
3 downloading and transmitting signals modulated to conform to any of the plurality of
4 communication formats, each of the plurality of communication formats having a different one
5 of said at least one code associated therewith.

1 10. The method of Claim 1, further comprising:
2 requesting said waveform be downloaded to said signal generator by an
3 automatic test equipment system.

1 11. The method of Claim 10, further comprising:

2 requesting an additional waveform be downloaded to an additional signal

3 generator by said automatic test equipment system.

1 12. The method of Claim 11, wherein said additional waveform is stored within an

2 additional storage media.

1 13. A system customizing at least one waveform of a signal generator, comprising:

2 a storage media adapted to store a waveform and at least one code associated

3 with said waveform; and

4 a download application configured to retrieve said waveform and at least one

5 key associated with said signal generator, compare said at least one code associated with said

6 waveform and said at least one key and download said waveform to said signal generator

7 under condition that said at least one code matches said at least one key,.

1 14. The system of Claim 13, further comprising:

2 a signal generation application configured to bundle said waveform and said at
3 least one code associated with said waveform into a file and store said file in said storage
4 media.

1 15. The system of Claim 14, wherein said signal generation application is further
2 configured to encrypt said file prior to storing said file in said storage media, said download
3 application being further configured to decrypt said file.

1 16. The system of Claim 14, wherein said signal generation application is further
2 configured to receive as input one or more parameters that characterize said waveform and
3 create said waveform based on said one or more parameters.

1 17. The system of Claim 16, wherein said signal generation application is further
2 configured to provide one or more signal generator settings and bundle said one or more
3 signal generator settings with said waveform and said at least one code, said download
4 application being further configured to use said one or more signal generator settings to
5 configure said signal generator.

1 18. The method of Claim 17, further comprising:
2 a computer having at least said signal generation application therein, said signal
3 generation application further having an interface capable of receiving at least one of said one
4 or more parameters and said one or more signal generator settings from a user of said
5 computer.

1 19. The system of Claim 18, wherein said one or more signal generator settings are
2 pre-configured and stored on said computer.

1 20. The system of Claim 18, wherein said computer further has said storage media
2 and said download application therein.

1 21. The system of Claim 18, further comprising an additional computer having at
2 least said download application therein.

1 22. The system of Claim 21, wherein said computer is operatively connected to
2 said additional computer.

1 23. The system of Claim 22, wherein said computer is connected to said additional
2 computer via a data network.

1 24. The system of Claim 13, wherein said at least one key is stored on said signal
2 generator.

1 25. The system of Claim 13, wherein said waveform is a signal modulated to
2 conform to one of a plurality of communication formats, said signal generator being capable of
3 downloading and transmitting signals modulated to conform to any of the plurality of
4 communication formats, each of the plurality of communication formats having a different one
5 of said at least one code associated therewith.

1 26. The system of Claim 13, further comprising:
2 an automatic test equipment system adapted to request said download
3 application to download said waveform to said signal generator.

1 27. The system of Claim 26, wherein said automatic test equipment system is
2 further configured to request an additional waveform be downloaded to an additional signal
3 generator.

1 28. The system of Claim 27, further comprising:
2 an additional storage media, said additional waveform being stored within said
3 additional storage media.